

**TRENCH REPORT**  
**FOR THE**  
**SOUTHERN MARYLAND WOODTREATING SITE**



**Prepared By:**  
**Tracy Flood**

**February 14, 1994**  
**Region III Technical Assistance Team**  
**TDD# 9307-17B**  
**PCS# 4947**

**For**  
**TERRY STILMAN, OSC**  
**EASTERN RESPONSE SECTION**  
**U.S. EPA Region III**

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TECHNICAL ASSISTANCE TEAM FOR EMERGENCY RESPONSE REMOVAL AND PREVENTION  
EPA CONTRACT 68-WO-0036

**TO:** Terry Stilman, OSC, EPA Region III  
Pennsylvania Remedial Branch

**THRU:** Mike Zickler, TATL Region III *WZ*

**FROM:** Tracy Flood, TAT Region III *TAK*

**SUBJECT:** Southern Maryland Wood Treating Site  
Calvert County  
Hollywood, Maryland

**DATE:** February 14, 1994

**TDD# 9307-17B**  
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## INTRODUCTION

On January 23, 1994, the U.S. Environmental Protection Agency (U.S. EPA) On-Scene Coordinator (OSC) Terry Stilman tasked a member of the Roy F. Weston Region III Technical Assistance Team (TAT), as well as a member of Environmental Technologies, Inc. (ETI), the Environmental Response Cleanup Services (ERCS) contractor, to complete a plan of action for a trench to be constructed above the pond area at the Southern Maryland Wood Treating Site (SMWT) in Hollywood, Maryland (Figure 1). The purpose of this trenching operation was to ascertain if a path could be determined for the migration of creosote that is present in the pond area.

## BACKGROUND

The SMWT Site was operated by L.A. Clarke and Sons, Inc., from 1965 to 1978 as a pressure treatment facility for wood preservation. Available information indicates that creosote and pentachlorophenol (PCP) were used as wood preservatives at the facility. Wood treatment activities are no longer being performed at the Site.

## GEOLOGICAL ASSESSMENT

The SMWT Site lies within the Atlantic Coastal Plain physiograph province. The Coastal Plain sediments of Maryland form a wedge generally composed of unconsolidated gravel, sands, silts, and clay deposits ranging in age from Cretaceous to Holocene. In Southern Maryland, these sedimentary beds dip to the southeast at very low angles, generally less than one (1) degree, forming a sedimentary wedge which increases in thickness to the southeast (Glaser, 1971).

The stratigraphy that is involved in the trenching operations at the SMWT Site is the Holocene/Pleistocene Series of the Quaternary System. Its stratigraphic units include lowland and upland deposits. The thickness in this series ranges from 0 - 190 feet. Its dominant lithologic character is that of sand, gravel, and clay, tan to rusty orange in color. This series yields small to moderate amounts of water to wells. It is utilized primarily as a water source for shallow, domestic, and farm wells.

F. Weston, Inc.

## MAJOR PROGRAMS DIVISION

In Association with Foster Wheeler Enviroresponse, Inc., Resource Applications, Inc., C.C. Johnson & Malhotra, P.C., R.E. Sarriera Associates, and GRB Environmental Services, Inc.

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## SOILS

According to the soil survey maps of St. Mary's County, Maryland (Soil Conservation Service, March 1978), the Site falls within the Sassafras - Beltsville soil association. These soils mainly consist of moderately well-drained, loamy, and silty soils. The Sassafras - Beltsville soil association is commonly comprised of 65 percent Sassafras, 25 percent Beltsville, and 10 percent minor soils. The soil's dealt with during the trenching operations at the Site were the Sassafras sandy loam and clay soils.

It is evident that a major portion of the surface and near sub-surface at the SMWT Site have been greatly disturbed and reworked by past waste disposal operations (i.e., lagoons and land treatment) as well as remedial actions (i.e., excavation and backfilling).

## ACTIONS TAKEN

On January 17, 1994, as per the OSC's request, TAT observed the test trenching operations that took place in three (3) locations above the pond area. These areas were agreed upon by both TAT Geologist Tracy Flood as well as ETI Engineer Kevin Fox. Results from this operation can be seen in Figure 2. Of the three (3) test pits dug, creosote was found in two (2) of them, A and B. A small to moderate amount of sludge was found in test pit A at a depth of nine (9) feet. At test pit B, free flowing product was found at a depth of 14 feet.

During the week of January 23, 1994, after a conference call with OSC, TAT, ERCS, and Gregg Powell of the EPA Environmental Response Team, a trench was constructed to a length of 130 feet and a width of 5 feet. The trench was constructed 15 feet away from the pond. A trench box was used to construct the trench and install three observation points. The two end observation points were installed to a depth of 10 feet, and the middle one, in which the pure creosote product was earlier found, was assembled to a depth of 20 feet. Rock was placed to position the galvanized pipe which was to serve as each observation point and a geo-fabric was placed between the rock and the topsoil.

The purpose of these observation points was to perceive if communication existed between the observation points (i.e., when the middle point is pumped, the water level on the two end points decreases).

On February 9, 1994, ERCS pumped the middle observation point with a motorized pump. Initially, there were three (3) feet, 10 inches of liquid in observation point A; 11 feet, 10 inches of liquid in observation point B; and three (3) feet, four (4) inches of liquid in observation point C. The pumping of observation point B took five (5) minutes. During that time there was no difference in the liquid levels of either of the two end points. It took 12 minutes for point B to recharge. Liquid levels were examined again and the process was repeated with similar results. Due to the amount of available pipe, the two end points were not able to be pumped.

At this time, there is no communication between the trench observation points.

## FUTURE ACTIONS

The OSC is to determine whether or not the trench should again be tested for communication between the points.

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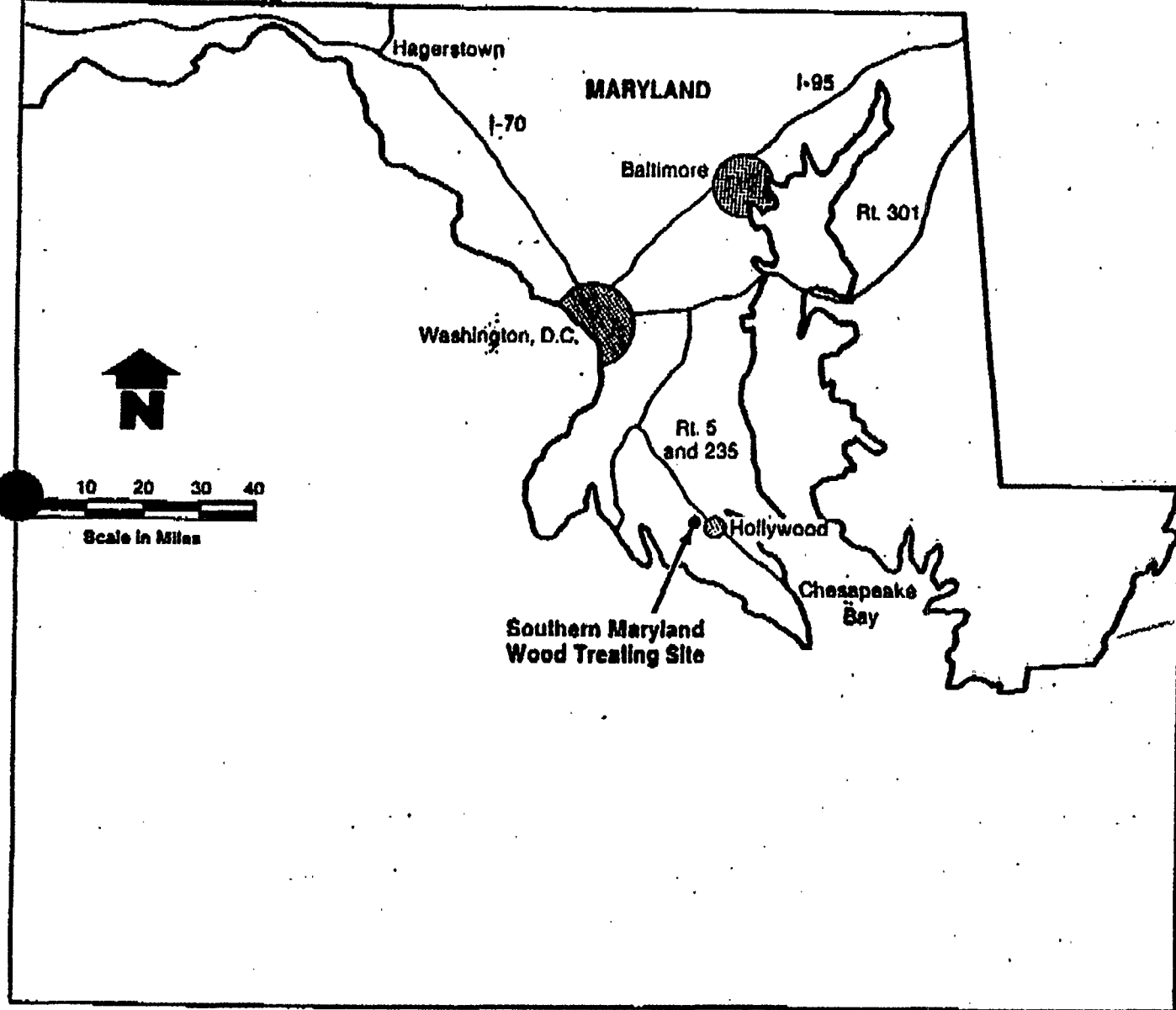


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**FIGURE 1**



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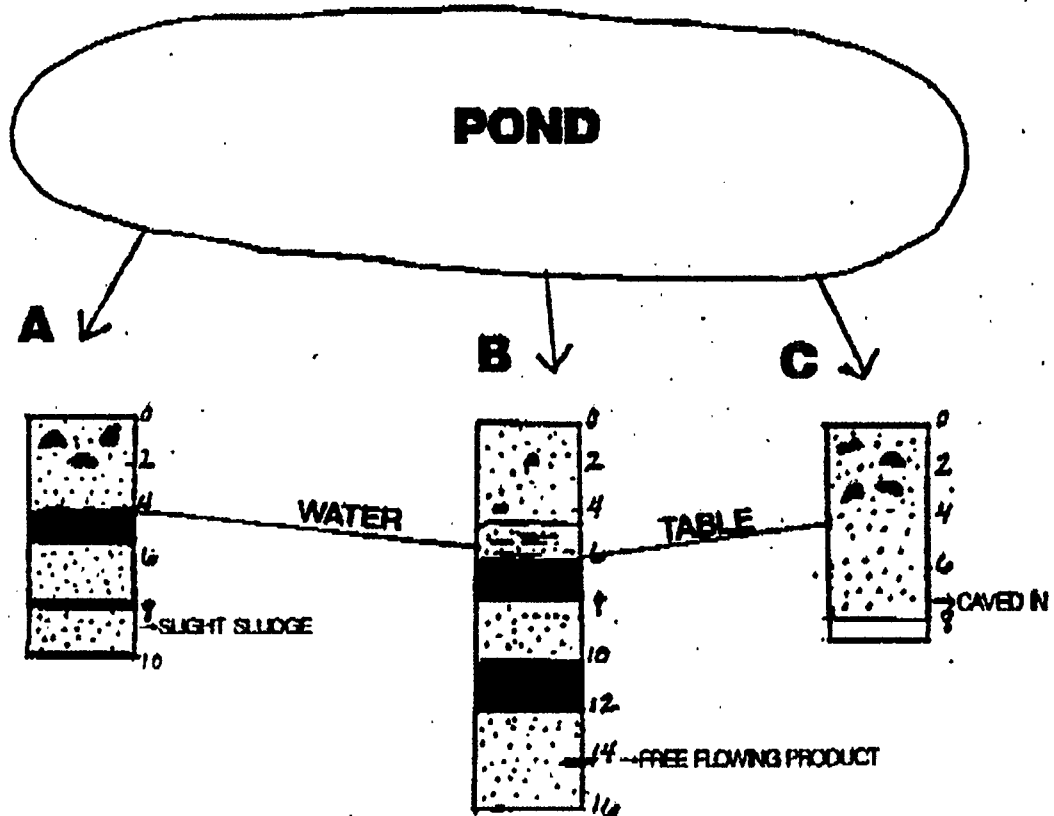
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**FIGURE 2**



**EXPLANATION**

	GRAVEL
	SAND
	SILT
	CLAY

(NOT DRAWN TO SCALE)

**SMWT TRENCHING STRATIGRAPHY**

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